

Appl. No. 10/026,140
Amdt. dated March 5, 2004
Reply to Office action of October 7, 2003

Page 7

REMARKS

The Invention.

The present invention provides a novel β -glucosidase nucleic acid sequence, designated *bgl5*, and the corresponding BGL5 amino acid sequence. The presently claimed invention also provides expression vectors and host cells comprising a nucleic acid sequence encoding BGL5, recombinant BGL5 proteins and methods for producing the same.

Status of the Application.

Claims 1-17, 19-20, 22-24 and 26 are pending in the application. Claims 18, 21, 25 and 27-36 have been cancelled herein. Claims 1, 2, 6-9, 22, 23 and 26 have been amended herein. Claims 6, 7 and 26 were amended to correct minor errors in type font. Claims 1, 2, 8, 9, 22 and 23 were amended to clarify what Applicants believe is the metes and bounds of the invention. Support for these amendments may be found throughout the specification as filed. No new matter is introduced by these amendments and their entry is respectfully requested.

Election/Restriction.

Claims 18, 21, 25 and 27-36 have been withdrawn by the Examiner as being drawn to a non-elected invention. Applicants hereby cancel Claims 18, 21, 25 and 27-36 without prejudice. Applicants reserve the right to pursue the originally filed, similar and/or broader Claims in the future.

Specification.

The disclosure was objected to as containing an embedded hyperlink and/or other form of browser-executable code. Applicants have amended the specification to remove the hyperlinks. Withdrawal of the objection is respectfully requested.

Claim Objections.

Claim 2 is objected to as allegedly reciting duplicate limitations. Specifically, the Examiner asserts that part (c) and part (e) are duplicative as are part (d) and part (f).

Appl. No. 10/026,140
Amdt. dated March 5, 2004
Reply to Office action of October 7, 2003

Page 8

Applicants have amended Claim 2 to remove any duplication. Withdrawal of this objection is respectfully requested.

Various claims were objected to because biological names were not in italics. Applicants have corrected the biological names to be recited in italics rendering this objection moot. Withdrawal of the objection is respectfully requested.

35 U.S.C. §112, first paragraph.

Claims 1-17, 19-20, 22 and 26

Claims 1-17, 19-20, 22 and 26 stand rejected under 35 USC §112, first paragraph as failing to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Specifically, the Examiner assert that the claims are so broad as to encompass any polynucleotide from any source encoding an endoglucanase, vectors, host cells, and method or expressing said endoglucanase and a host cell expressing an inactivated endoglucanase. Applicants respectfully traverse.

It is settled law that the Patent Office, in asserting an enabling disclosure is not commensurate in scope with the protection sought, must support such assertions with evidence or reasoning substantiating the doubts so expressed. In re Dinh-Huynh, 181 U.S.P.Q. 46 (CCPA 1974). The Patent Office requirement is further described in In re Bowen, 181 U.S.P.Q. 48 (CCPA 1974):

"As a matter of Patent Office practice, then, a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented *must* be taken as in compliance with the enabling requirement of the first paragraph of §112, *unless* there is reason to doubt the objective truth of the statements contained therein which must be relied upon for enabling support. . . .

Here, the only reason given appellant why his specification does not enable one skilled in the art to use his invention as broadly as it is claimed is the statement of the board that "polymerizable materials" include "not only . . . all of the very many organic polymers . . . but also inorganic polymers." But even this statement only identifies a subgenus of "polymerizable materials" without giving a reason for the implication inherent therein that inorganic polymers would not work in appellant's process. . . .

Appl. No. 10/026,140
Amdt. dated March 5, 2004
Reply to Office action of October 7, 2003

Page 9

Accordingly, there appears to be no basis for the non-enablement rejection on the theory that claims read on undisclosed polymers. While the claims literally comprehend numerous polymers in addition to the one specifically described in appellant's specification, nylon 66, no persuasive reason has been given by the Patent Office why the specification does not realistically enable one skilled in the art to practice the invention as broadly as it is claims."

The Office Action, as in Bowen, fails to suggest any reasons for the implication therein that the other described polynucleotides in the specification would not work in the claimed invention. Applicants submit that merely objecting that the claims encompass "extremely large number of polynucleotides" is insufficient. The unsupported conjectural statements regarding the undue experimentation are similarly unsupported and therefore insufficient to support the rejection under 35 U.S.C. §112, first paragraph.

Applicants currently claim a polynucleotide encoding a β -glucosidase from a fungus source. However, to further clarify the invention, Applicants amended claim 1 to clarify that the polynucleotide encodes a β -glucosidase 5.

Withdrawal of the rejection is respectfully requested.

35 U.S.C. §112, second paragraph.

Claims 1, 6 and 7

Claims 1, 6 and 7 are rejected under 35 USC §112, second paragraph as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has amended Claim 1 to more distinctly claim the subject matter which applicant regards as the invention. Specifically, Claim 1 now refers to β -glucosidase 5. Claim 6 has been amended to depend from Claim 1. Claim 7, although it has not been amended, depends from Claim 6 which has been amended.

Withdrawal of the rejection is respectfully requested.

Appl. No. 10/026,140
Amdt. dated March 5, 2004
Reply to Office action of October 7, 2003

Page 10

Claims 8-9 and 11

Claims 8-9 and 11 are rejected under 35 USC §112, second paragraph as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner asserts that the phrases "including a polynucleotide" and "including the expression construct" are unclear. Applicants have amended the claims to recite "comprising" rendering this rejection moot. Withdrawal of the rejection is respectfully requested.

Claim 8

Claim 8 and claims 9 and 11 dependent therefrom stand rejected under 35 USC §112, second paragraph as being indefinite. Specifically, the Examiner asserts that Applicants are "directly comparing the claimed nucleic acid with an amino acid sequence" which requires correction. Applicants have corrected the error rendering this rejection moot. Withdrawal is respectfully requested.

Claim 23

Claim 23 and claim 24 dependent therefrom stand rejected under 35 USC §112, second paragraph as being indefinite. Specifically, the Examiner asserts the phrase "decreases" renders the claim indefinite. Applicants respectfully traverse.

Applicants have amended claim 23 to recited that the decrease is relative to control host cell. Thus, Applicants have amended Claim 23 to clarify the metes and bounds of the invention as suggested by the Examiner. Withdrawal of the rejection is respectfully requested.

35 U.S.C. §102(b).

Claims 1, 6-7, 19-20 and 26 stand rejected under 35 USC §102(b) as being anticipated by Takashima et al (J. Biochem (1999) 125:728-736). Specifically, the Examiner asserts that Takashima et al. discloses all elements of the claimed invention within its four corners. Applicants respectfully traverse.

The currently presented claims are directed to β -glucosidases encoded by polynucleotides having certain enumerated sequences. Takashima et al. is directed to a

Appl. No. 10/026,140
Amdt. dated March 5, 2004
Reply to Office action of October 7, 2003

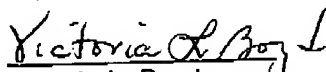
Page 11

β -glucosidase 2 gene and its protein product from *T. reesei*. Takashima et al. fails to teach the polynucleotides encoding a β -glucosidase 5 as recited in the present invention. Withdrawal of the rejection is respectfully requested.

CONCLUSION

In light of the above amendments, as well as the remarks, the Applicants believe the pending claims are in condition for allowance and issuance of a formal Notice of Allowance at an early date is respectfully requested. If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (650) 846-7615.

Respectfully submitted,


Victoria L. Boyd
Registration No. 43,510

Date: March 5, 2004

Genencor International, Inc.
925 Page Mill Road
Palo Alto, CA 94304
Tel: 650-846-7615
Fax: 650-845-6504